

TEST CH.5 REVIEW PART Q. 8-10.

$$(8) \quad 2x^2 + x - 6 = 0$$

$$2x^2 + 1x - 6 = 0$$

$$a=2 \quad b=1 \quad c=-6$$

$$x_1 = \frac{-b - \sqrt{b^2 - 4ac}}{2a} \quad x_2 = \frac{-b + \sqrt{b^2 - 4ac}}{2a}$$

$$\begin{array}{l} x_1 \quad \left(\frac{-1 - \sqrt{(1^2 - 4 \cdot 2 \cdot (-6))}}{(2 \cdot 2)} \right) \\ x_2 \quad \left(\frac{-1 + \sqrt{(1^2 - 4 \cdot 2 \cdot (-6))}}{(2 \cdot 2)} \right) \end{array}$$

$$x_1 = -2$$

$$x_2 = 1.5$$

$$\textcircled{9} \quad 2x^2 + 9x = 3$$

$$\quad \quad \quad -3 \quad -3$$

$$2x^2 + 9x - 3 = 0$$

$$ax^2 + bx + c = 0$$

$$a = 2; \quad b = 9; \quad c = -3$$

$$x_1 \quad \left(\frac{-9 - \sqrt{9^2 - 4 \cdot 2 \cdot (-3)}}{2 \cdot 2} \right) \div \textcircled{\approx -4.8}$$

$$x_2 \quad \left(\frac{-9 + \sqrt{9^2 - 4 \cdot 2 \cdot (-3)}}{2 \cdot 2} \right) \div \textcircled{= 0.31}$$

(10)

$$y = x^2 - 18x - 5$$

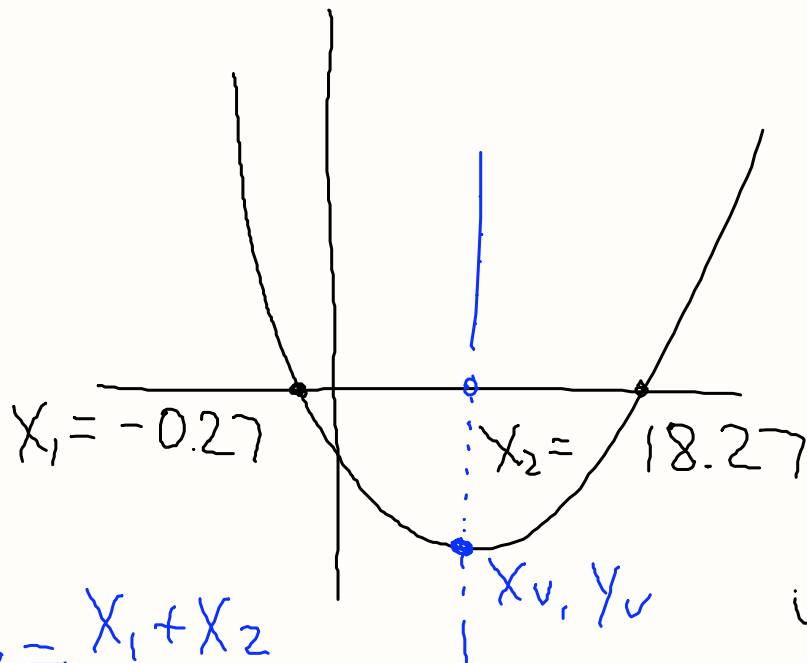
$$y = 1 \cdot x^2 - 18x - 5$$

$$a=1 \quad b=-18 \quad c=-5$$

x_1

$$(18 - \sqrt{(18^2 - 4 \cdot 1 \cdot (-5))}) / (2 \cdot 1) = \underline{\underline{-0.27}}$$

$$x_2 (18 + \sqrt{(18^2 - 4 \cdot 1 \cdot (-5))}) / (2 \cdot 1) \approx \underline{\underline{18.27}}$$



$$x_v = \frac{x_1 + x_2}{2}$$
$$= \frac{-0.27 + 18.27}{2} = 9$$

$$y = x^2 - 18x - 5$$
$$y_v = 9^2 - 18 \cdot 9 - 5 = -86$$

$$\textcircled{\#41} \quad 4(x-5)^2 - 216 = 0$$

+ 216 + 216

$$\underbrace{4(x-5)^2}_{y_1} = \underbrace{216}_{y_2}$$

$$y_1 = 4(x-5)^2$$

$$y_2 = \underline{\underline{216}}$$

ZOOM 6

$$X_{\min} = -10$$

$$X_{\max} = 10$$

$$Y_{\min} = -10$$

$$\underline{\underline{Y_{\max} = 250}}$$

COMPLEX NUMBERS

$$\sqrt{25} = 5 \quad -5; 5$$

$$-5 \cdot -5 = 25$$

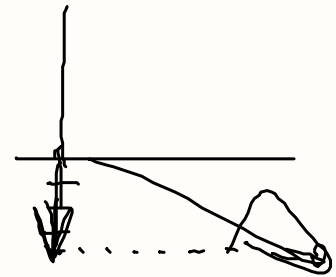
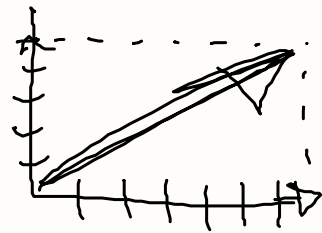
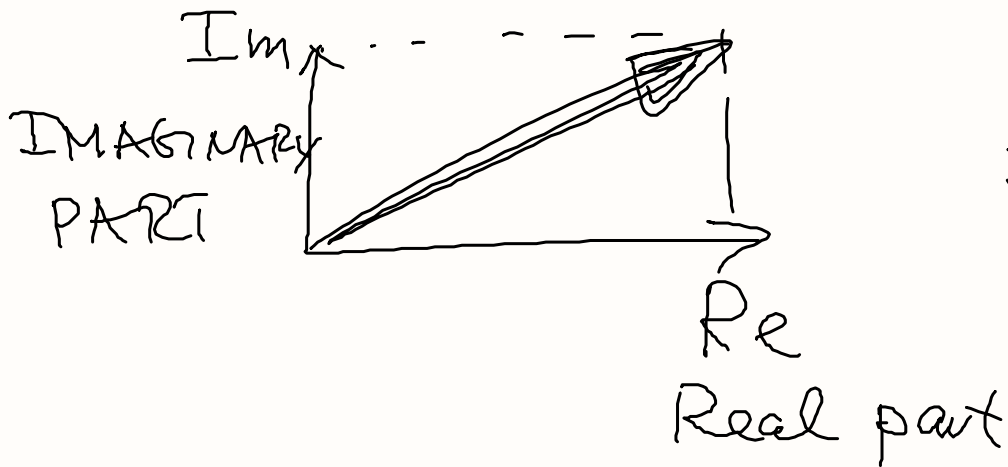
$$5 \cdot 5 = 25$$

$$\sqrt{-25} \quad i^2 = -1$$

$$-5i, 5i$$

$$(-5i)(-5i) = (-5 \cdot -5)(i \cdot i) = 25 \underbrace{i^2}_{-1} = -25$$

$$(5i)(5i) = 25i^2 = -25$$



$$5 = 5 + 0i$$

$$\frac{5i+7}{-4i+10} = i+17$$

$$(5i+7)(-4i+10) = -20i^2 + 50i - 28i^4 + 70 = -48i^2 + 50i + 70 = 48 + 50i + 70 = 118 + 50i$$